

No. 2505

In the United States Circuit
Court of Appeals

FOR THE NINTH CIRCUIT

HASSAM PAVING COM-
PANY and
OREGON HASSAM PAV-
ING COMPANY,

Appellees

vs.

CONSOLIDATED CON-
TRACT COMPANY and
PACIFIC COAST CASU-
ALTY COMPANY,

Appellants

Upon Appeal from the United States District
Court for the District of Oregon

Brief of Appellants

JESSE STEARNS,
JOHN H. HALL,
for Appellants

LOUIS W. SOUTHGATE,
CAREY & KERR,
for Appellees

Filed

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STATEMENT.

This is an infringement suit brought by complainants to restrain defendant Consolidated Contract Company from using a process for the construction of highways claimed to have been invented by one Walter E. Hassam and for which several patents have been issued to him and to his successors.

Defendants by way of defense contend:

First: That there was no novelty and no invention in the process on which complainants claim a patent, the process of the laying of the so called "Hassam" pavement.

Second: That said process had been described in printed publications more than two years prior to the application for the patent.

Third: That a process substantially identical with that of the process claimed by complainants had been used in the construction of public highways and streets more than two years prior to the application for complainants' patents.

Fourth: That complainants were estopped by reason of having granted a license to the City of Portland to use said process in laying pavement, without making any reservation for royalty.

The facts as they appear from the testimony and record are: That in the month of April, 1910, complainants, through their agents, requested the City of Portland, through its Common Council to specify the process used by complainants in the construction of streets and highways under the name of Hassam pavement, in an ordinance passed by the Common Council of the City of Portland, specifying the various kinds of pavements to be used in paving the streets of the City of Portland.

That in the early part of 1911, the City of Portland deemed it advisable to pave Commercial street in the City of Portland and specified the process upon which complainants claim a patent, as the mode of improving said street.

That defendant Consolidated Contract Company was a contractor in the City of Portland and submitted a bid for the improvement of said street, which bid being accepted, it proceeded to construct said street in accordance with the plans and specifications, which for the purposes of this case are as follows:

“Section 28. The roadway shall be graded the full width of the roadway down to subgrade as given by the City Engineer. Said subgrade shall be six (6) inches below the finished surface of the street.

Care must be taken to preserve the proper crown. All soft or springy places not affording a firm foundation shall be dug out and refilled with good earth, gravel or macadam, well rammed in place.

The entire roadbed shall be thoroughly rolled and compacted with a road roller weighing not less than ten tons, to the satisfaction of the City Engineer. Such rolling shall be completed in sections of at least one block and shall be tested and accepted by the City Engineer before any material for the pavement is placed thereon.

Rolling shall be continued until the street is rolled to the satisfaction of the City Engineer.

The thickness of pavement shall not be less than six (6) inches from subgrade to the finished grade of street.

Upon the finished subgrade clean, broken rock, ninety per cent of amount varying in size from two and one-half ($2\frac{1}{2}$) inches to one and one-half ($1\frac{1}{2}$) inches, shall be spread to a sufficient depth to bring the surface after rolling to the proper finished grade of the street, which shall be six (6) inches above subgrade.

This rock shall then be thoroughly compacted by rolling with a road roller, giving a compression of not less than 250 pounds per inch width of roller, and shall be firmly bedded, and the voids reduced to a minimum, and surface shall conform to grade and contour of the street. Such portions of pavement as it may not be possible to roll shall be thoroughly compressed by tamping.

The voids in the rock shall then be thoroughly filled with a grout consisting of one part of Portland cement to two parts of sand. This grout shall be sufficiently thin to flow freely, and shall be thoroughly and continuously mixed and poured upon the rock until all the voids are filled and the grout flushes to the surface under the rolling or compression, which shall immediately follow the grouting and shall be continued until no further compacting results.

Upon the surface of the pavement thus prepared shall be placed a very thin layer of peastone, which shall be thoroughly spread and rolled or compressed evenly and smoothly over the entire surface. The peastone layer shall have just sufficient thickness to insure the complete filling of the voids in the pavement surface. Rolling shall continue until the grout flushes to the surface."

Complainants then instituted this suit, claiming that the process so prescribed was patented by their predecessors in interest and duly conveyed to them, and that as such patentees they have the sole and exclusive right to lay the class of pavement specified in said plans and specifications.

From the decree in favor of complainants the defendants have taken this appeal.

ASSIGNMENT OF ERRORS.

The appellants, assign for errors in said decree the following:

First: Said District Court of the United States in and for the District of Oregon, erred in determining and deciding that letters patent No. 819,652 entitled "Pavement and Process of Laying the Same," granted and issued on May 1, 1906, to Walter E. Hassam and Charles K. Peavey jointly; No. 861,650, entitled "Artificial Structure and Process of Making the Same," granted and issued on July 30, 1907, to Hassam Paving Company; and No. 851,625, entitled "Process for Laying Pavement," granted and issued on April 23, 1907, to Hassam Paving Company, mentioned in the bill of complaint herein, are good and valid in any respect.

Second: That the said District Court erred in determining and deciding that Walter E. Hassam was the first and original inventor and discoverer of each and all of the said alleged inventions as described and claimed in the said several patents, and the specifications annexed thereto.

Third: That the said District Court erred in determining and deciding that the claims and specifications mentioned in said patents, or any of them, were new and useful inventions; that they were neither known nor used by others in this country, before the alleged invention and discovery thereof by the said Walter E. Hassam; and that the said claims and specifications mentioned in the said patents were never patented or described in any printed publication in this or any foreign country before the alleged invention and discovery thereof by the said Hassam, or more than two years before the application for United States letters patent thereof; and that at the time of the several applica-

tions for United States letters patent therefor the said claims and specifications had not been in public use in the United States for more than two years.

Fourth: That the said District Court erred in not determining and deciding that the said claims and specifications mentioned in the said several patents and each of them were void for lack of novelty and invention.

Fifth: That the said District Court erred in deciding and determining that said defendants have infringed upon the rights of said complainants claimed under the said three letters patent, No. 819,652, 861,650 and 851,625.

Sixth: Said District Court erred in finding and determining that the complainants are entitled to recover damages from the said defendants by reason of any violation of any rights of the complainants under said letters patent.

Seventh: That the said District Court erred in determining and deciding that the complainants should have a perpetual injunction in this case against the defendants and each of them, restraining them, their agents, clerks, servants and all claiming or holding under or through them or either of them, from making, selling, using or disposing of pavements and structures embracing the alleged inventions or improvements described in the said letters patent.

Eighth: That the said District Court erred in not finding and decreeing for said defendants on the record.

Ninth: That the Findings and Decree of the said District Court are against the law and the equity of the case.

Defendants contend that complainants have no valid patent to said process for the reason that every step and every method employed in the laying or construction of said pavement had been used singly and as a whole, and was known generally to persons who were engaged in that business. That there was nothing new or novel that entered into the construction of the pavement, nothing that called forth the inventive genius of man, and nothing except that which would suggest itself to any ordinarily skilled workman, which would differentiate it from the processes that had been in use for many years. That the combination of the old and well known processes by complainants did not produce a new result.

That complainants' patents are based upon nothing more nor less than the well known process of making a macadam road, and grouting it with Portland cement and sand.

POINTS AND AUTHORITIES.

I.

A patent of a device or process, the result of mechanical skill and not the product of inventive genius, is void.

Lord & Burnham vs. Payne, 190 Fed. 172-178.

Phillips vs. Detroit, 111 U. S. 604, 607.

Atlantic Works vs. Brady, 107 U. S. 192-199.

Market Street Ry. Co. vs. Rowley, 155 U. S. 621-629.

Specialty Mfg. Co. vs. Fenton Mfg. Co.,
174 U. S. 492, 497.

Van Camp vs. Maryland Pavement Co., 34
Fed. 740, 743.

II.

A combination of old and known devices or processes which does not produce a new and useful result is not invention.

Tubelt Co. vs. Friedman, 158 Fed. 430-439.

Eq. Asphalt Maintenance Co. vs. Parker-
Wash. Co., 197 Fed. 920.

Turner vs. Moore, 211 Fed. 466.

Pickering vs. McCulloch, 104 U. S. 310.

Penn R. R. Co. vs. Locomotive Truck Co.,
110 U. S. 490.

Torrey vs. Hancock (C. C. A.), 184 Fed.
61.

Richards vs. Chase Elevator Co., 158 U. S.
299-302.

III.

The substitution of equivalents or of one material for another in a device or process to produce the same or even a better result is not invention, and will not sustain a patent.

Hotchkiss vs. Greenwood, 11 Howard 248-
265.

Hicks vs. Kelsey, 18 Wall. 670-673.

Smith vs. Nichols, 21 Wall. 112-119.

Brown vs. Piper, 91 U. S. 37-41.

Brown vs. Dist. of Columbia, 130 U. S. 87-
99.

IV.

Pleading and proof that the device or process patented had been in use, or described in some printed publication prior to the application for the patent, will defeat a suit for its infringement.

Coffin vs. Ogden, 18 Wall. 120-124.

Cohn vs. U. S. Corset Co., 93 U. S. 366.

Downton vs. Yeager Milling Co., 108 U. S. 466.

Stow vs. Chicago, 104 U. S. 547-551.

Egbert vs. Lippman, 104 U. S. 333-336.

Imperial Brass Mfg. Co. vs. Nelson, 194 Fed. 165.

V.

A patentee is conclusively presumed to know the prior state of the art.

Mast Foos & Co. vs. Stover Mfg. Co., 177 U. S. 485-493.

Crompton vs. Knowles, 7 Fed. 199-203.

Daylight Mfg. Co. vs. Am. Prismatic Glass Mfg. Co., 142 Fed. 454-456.

Voigtmann vs. Weis & Ridge Cornice Co. (C. C. A.), 148 Fed. 848-851.

VI.

“Paper Patents” and abandoned experiments fully disclosing the patented device or process will defeat patentees claim of novelty and invention.

Gayler vs. Wilder, 10 How. 477-498.

National Chemical & Fertilizer Co. vs. Swift & Co. (C. C. A.), 104 Fed. 87-91.

Westinghouse Air Brake Co. vs. Christiansen Eng. Co., 128 Fed. 437-442.

Sanders vs. Hancock, 128 Fed. 424-433 (C. C. A.)

Van Epps vs. United Box Board & Paper Co. (C. C. A.), 143 Fed. 869-874.

VII.

Commercial use and exploitation of a patented article is of no value when the question of validity is free from doubt.

N. Y. Belting & P. Co. vs. Sierer, 149 Fed. 756-767.

Hyde vs. Minerals Separation, 214 Fed. 100-107-8.

I.

That under the statute a patent must be granted only upon the result of invention and not of mechanical skill is exemplified by the following decisions:

Section 4886 U. S. Revised Statutes, is as follows:

“Any person who has invented or discovered any new and useful art, machine, manufacture or composition of matter, or any new and useful improvements thereof, not known or used by others in this country before his invention or discovery thereof, and not patented or described in any printed publication in this or any foreign country before his invention or discovery thereof, or more than two years prior to his application and not in public use or on sale in this country for more than two years

prior to his application unless the same is proved to have been abandoned, may, upon the payment of the fees required by law, and other due proceeding had, obtain a patent therefor.”

In *Atlantic Works vs. Brady*, 107 U. S. 192, at page 199, the Court says:

“The process of development in manufactures creates a constant demand for new appliances, which the skill of ordinary head-workmen and engineers is generally adequate to devise, and which, indeed, are the natural and proper outgrowth of such development. Each step forward prepares the way for the next, and each is usually taken by spontaneous trials and attempts in a hundred different places. To grant to a single party a monopoly of every slight advance made, except where the exercise of invention, somewhat above ordinary mechanical or engineering skill, is distinctly shown, is unjust in principle and injurious in its consequences.

The design of the patent laws is to reward those who make some substantial discovery or invention, which adds to our knowledge and makes a step in advance in the useful arts. Such inventors are worthy of all favor. It was never the object of those laws to grant a monopoly for every trifling device, every shadow of a shade of an idea, which would naturally and spontaneously occur to any skilled mechanic or operator in the ordinary progress of manufactures. Such an indiscriminate creation of exclusive privileges tends rather to obstruct than to stimulate invention. It creates a class of speculative schemers who make it their business to watch the advancing wave of improvement, and gather its foam in the form of patentable monopolies, which enable them to lay a heavy tax upon the industry of the country, without contributing anything to the real advancement of the arts. It embarrasses the

honest pursuit of business with fears and apprehensions of concealed liens and unknown liabilities to lawsuits and vexatious accounts for profits made in good faith.”

Phillips vs. Detroit, 111 U. S. 604.

This was a suit to restrain the City of Detroit from infringing letters-patent granted to complainant for a useful improvement in street and other highway pavement. The invention claimed was a wooden pavement, composed of blocks of any desired wood cut from the trunks or branches of trees or saplings, in any desired length, in their natural form, the bark only being removed, placed with the fibres vertical upon a bed of broken stone, and gravel or sand, or either of them, the spaces between the blocks being filled with gravel or sand and the whole made compact by rolling or ramming or other proper methods. The Court, by Mr. Justice Woods, says at page 606:

“The only thing left for the patent to cover is the bringing together of these three old and well known elements in the construction of a pavement—namely, the wooden blocks, the foundation, and the filling.

In passing upon the novelty of the alleged improvement covered by this patent, we are permitted to consider matters of common knowledge or things in common use.” (Citing *Brown vs. Piper*, 91 U. S. 37 and other cases.) “We therefore take into consideration that fact that the common and well known method of constructing pavements in use long before the date of the Phillips patent, was to prepare a foundation or bed of gravel or sand, place the blocks, boulders or bricks of which the pavement was to be made upon this bed and fill the spaces

between them with sand or gravel, or both mixed. Familiar instances of pavements thus made are the cobble-stone pavements usually laid in streets, and the brick pavements usually laid upon sidewalks. This is the method pointed out in the specifications of the Phillips patent. It is conceded in the disclaimer embodied in the specification that the use of wooden blocks like those described in the specifications is not new, and the evidence shows that such blocks, set vertically, had long been employed in the construction of pavements. The improvements described in the appellant's patent consists, therefore, in simply taking a material well known and long used in the making of pavements, to-wit, wooden blocks set vertically, and with them constructing a pavement in a method well known and long used. It is plain, therefore, that the improvement described in the patent was within the mental reach of any one skilled in the art to which the patent relates, and did not require invention to devise it, but only the use of ordinary judgment and mechanical skill. It involves merely the skill of the workman and not the genius of the inventor."

Market Street Railway Co. vs. Rowley, 155
U. S. 621.

This patent related to oil feed, and at page 629 the Court said:

"The case is obviously within the principle, so often declared, that a mere carrying forward of the original thought, a change only in form, proportions, or degree, doing the same thing in the same way by substantially the same means, with better results, is not such an invention as will sustain a patent." Citing *Roberts vs. Ryer*, 91 U. S. 150; *Belden Mfg. Co. vs Challenge Corn Planter Co.*, 152 U. S. 100.

Lord & Burnham Co. vs. Payne, 190 Fed.
172-178.

“Invention is not the offspring of mere mechanical skill, no matter how highly developed it may be. And, while it may be said to be the product of the intellect as against mere handiness in the use of tools, it is not every new mental conception in a useful art, which marks an advance in such art, that steps the mechanic into an inventor under our law. I cannot subscribe to the doctrine that all mechanical skill does not require thought or that thinking out a mechanical problem to a satisfactory solution necessarily involves the exercise of the inventive faculty. A skilled mechanic can produce devices that are new and useful, but under the patent laws, unless they are also inventions, they are not patentable. Neither the constitutional provision nor the patent statute is intended to give a monopoly for a mere mechanical device, no matter how novel or useful it may be. It must be inventively new and useful. To be entitled to a monopoly, the patentee must show that his device is the mechanical embodiment of a new mental conception, the result of mental explorations which carries him beyond the boundary lines of the field or scope of ordinary mechanical or engineering skill.”

Specialty Mfg. Co. vs. Fenton Mfg. Co. 174
U. S. 492.

This suit was in relation to a patent involving roller book shelves, and Mr. Justice Brown delivering the opinion of the Court, at page 497 says:

“Comparing these several devices with the patent in suit, it is manifest that every element of the combination, described in the first and second claims, is found in one or the other of such devices. * * *
Putting the patent in its most favorable light, it is

very little, if anything, more than an aggregation of prior well known devices, each constituent of which aggregation performs its own appropriate function in the old way. Where a combination of old devices produces a new result such combination is doubtless patentable, but where the combination is not only of old elements, but of old results, and no new function is evolved from such combination, it falls within the rulings of this court." (Citing many cases.) "Hoffman may have succeeded in producing a shelf more convenient and more salable than any which preceded it, but he has done it principally, if not wholly, by the exercise of mechanical skill."

In *Van Camp vs. Maryland Pavement Co.*, 34 Fed. 740, the Court says at page 743:

"Complainant's counsel, however urges that the patent should be construed as claiming the invention, not only of a process, but also as claiming a new combination of matter; that is to say, a new paving concrete not before discovered. It is difficult to see how this contention can be supported, either as a construction of the language of the patent, or, if it could be shown to be claimed in the patent, how it could be maintained that the process there described results in a new product. The patent does not anywhere use words which can be construed to mean that the patentee has discovered a new substance for use in pavements, or that he has discovered a new paving material. The patentee simply and by apt and appropriate words claims that he has invented an improvement in concrete pavements. As before shown, concrete pavements made of the same materials variously compounded were old and in common use. The result of his combination was a material not different in anywise from former combinations, except that it contained a little more or less of some of the same ingredients mechanically

combined, and differing from others only as the proportions of the ingredients differed. When such a mechanically combined material is old and in common use, and has already been the subject of numerous patented improvements both as to the proportions of the ingredients, the processes of manufacturing, and methods of laying the pavement made of it, to say that a person who has merely altered the proportions of the ingredients or the process of combining them has discovered a new composition of matter in the sense of the patent law, is to trifle with language. To be a new combination of matter the product must have some distinctly new property, or be applicable to some new use."

II.

A combination of old and known devices or processes which does not produce a new and useful result is not invention and therefore not patentable.

In the case of *Tubelt Company vs. Friedman*, 158 Fed. at p. 439, Judge Ray used the following language:

"It will not do to find patentable invention in a device or structure where all its elements are found in the prior art, and all the alleged inventor does to produce it is to take one of the prior patented devices, and leave out one of its elements and substitute in place thereof a well known equivalent taken from another device of the same kind where it was used for the same purpose, operated in the same way and produced the same results as is required in its new location, and the sole result of the substitution is that the substituted element operates or works a little better than did the displaced one, and thereby the operation of the alleged new struc-

ture is somewhat improved. This is improvement but not invention. It may be a successful experiment, but there is no novelty." Citing many cases.

See also *Equitable Asphalt Maintenance Co. vs. Parker-Washington Co.*, 197 Fed. 920.

Turner vs. Moore, 211 Fed. 466-469.

Pickering vs. McCullough, 104 U. S. 310.

"A combination of old elements is not patentable unless they all so enter into it as that each qualifies every other. It must either form a new machine of distinct character and function, or produce a result which is not the mere aggregate of separate contributions, but is due to the joint and co-operating action of all the elements."

Mr. Justice Gray in the case of *Pennsylvania Railroad Co. vs. Locomotive Truck Company*, 110 U. S. 490, says:

"it is settled by many decisions of this Court * * * that the application of an old process or machine to a similar or analagous subject with no change in the manner of application and no result substantially distinct in its nature, will not sustain a patent even if the new form of result has not before been contemplated."

Torrey vs. Hancock (C. C. A.), 184 Fed. 61.

"Changes in degree, proportion or symmetry in a machine where it does the same thing in the same old way and by substantially the same means, although it may produce better results, does not amount to patentable invention."

Richards vs. Chase Elevator Co., 158 U. S. 299, at p. 302 the Court says: "Unless the combination accomplishes some new result the combination of

elements does not make it patentable. So long as each element performs some old and well known function, the result is not a patentable combination, but an aggregation of elements.”

III.

The substitution of equivalents or of one material for another in a device or process to produce the same or even a better result is not invention and will not sustain a patent.

Hotchkiss vs. Greenwood, 11 Howard 248.

The patent in that case was for making door knobs of clay or porcelain with a cavity in the knob in which the screw or shank was inserted, being largest at the bottom and in the form of dovetail, or wedge reversed, and metal poured in in a fused state and fastened. Having been shown that clay or porcelain had been used for the same purpose, and the shank or spindle had before been in use, it was held that the patent was void for want of novelty. The Court says at page 265:

“The knob is not new, nor the metallic shank and spindle, nor the dovetail form of the cavity in the knob, nor the means by which the metallic shank is securely fastened therein. All these were well known, and in common use, and the only thing new is the substitution of a knob of a different material from that heretofore used in connection with this arrangement.

Now it may very well be, that, by connecting the clay or porcelain knob with the metallic shank in this well known mode, an article is produced better and cheaper than in the case of the metallic or wood knob; but this does not result from any new mechan-

ical device or contrivance, but from the fact that the material of which the knob is composed happens to be better adapted to the purpose for which it is made. The improvement consists in the superiority of the material, and which is not new, over that previously employed in making the knob.

But this, of itself, can never be the subject of a patent. No one will pretend that a machine made, in whole or in part, of materials better adapted to the purpose for which it is used than the materials of which the old one is constructed, and for that reason better and cheaper, can be distinguished from the old one, or, in the sense of the patent law, can entitle the manufacturer to a patent.

The difference is formal, and destitute of ingenuity or invention. It may afford evidence of judgment and skill in the selection and adaptation of the materials in the manufacture of the instrument for the purposes intended, but nothing more."

The Court then cites the case of a button, where the foundation was wood and the improvement consisted of covering the face with tin, and the patent was held void because a button was produced which had been previously used, made in precisely the same way except the foundation was bone, and the Court held in both cases that the improvement was the work of a skilled mechanic and not that of an inventor.

Hicks vs. Kelsey, 18 Wallace, 670.

"The mere change in an instrument or machine of one material into another—as of wood, or of wood strengthened with iron into iron alone—is not "invention" in the sense of the Patent Acts, and therefore is not the subject of a patent."

Mr. Justice Bradley delivered the opinion of the Court, and said at page 673 (the patent in question being upon a wagon reach) :

“The question is whether the mere change of material—making the curve of iron instead of wood and iron—was a sufficient change to constitute invention; the purpose being the same, the means of accomplishing it being the same, and the form of the reach and mode of operation being the same.

It is certainly difficult to bring the case within any recognized rule of novelty by which the patent can be sustained. The use of one material instead of another in constructing a known machine is, in most cases, so obviously a matter of mere mechanical judgment, and not of invention, that it cannot be called an invention, unless some new and useful result, an increase of efficiency, or a decided saving in the operation, is clearly attained. Some evidence was given to show that the wagon-reach of the plaintiff is a better reach, requiring less repair, and having greater solidity than the wooden reach. But it is not sufficient to bring the case out of the category of more or less excellence of construction. The machine is the same. Axe-helves made of hickory may be more durable and more cheap in the end than those made of beech or pine, but the first application of hickory to the purpose would not be, therefore, patentable.”

It was held that the invention was void for a lack of novelty in the alleged invention.

Smith vs. Nichols, 21 Wallace 112.

This was a patent for weaving elastic web. In discussing the want of novelty in the patent, the Court says at page 119:

“But a mere carrying forward a new or more

extended application of the original thought, a change only in form, proportions, or degree, the substitution of equivalents, doing substantially the same thing in the same way by substantially the same means with better results, is not such invention as will sustain a patent. These rules apply alike, whether what preceded was covered by a patent or rested only in public knowledge and use. In neither case can there be an invasion of such domain and an appropriation of anything found there. In one case everything belongs to the prior patentee, in the other, to the public at large."

And it was held that all the particulars claimed by the complainant, if conceded to be his, are within the category of degree, and that the patent was void.

Brown vs. Piper, 91 U. S. 37.

HELD: "The application by the patentee of an old process to a new subject, without any exercise of the inventive faculty, and without the development of any idea which can be deemed new or original in the sense of the patent laws, is not the subject of a patent."

This was a patent for preserving fish and other articles in a close chamber by means of a freezing mixture, having no contact with the atmosphere of the preserving chamber. The Court held that this idea had been anticipated by the use of the ice cream freezer.

After taking judicial notice that air is an agent of decay and that if it be excluded putrefaction ceases, and that a low degree of cold prevents the decay of animal matter, and referring to various

scientific books, the Court, at page 41, in reply to the claim that the process never had been applied to the preservation of fish and meats, says:

“The answer is, that this was simply the application by the patentee of an old process to a new subject, without any exercise of inventive faculty, and without the development of any idea which can be deemed new or original in the sense of the patent law. The thing was within the circle of what was well known before, and belonged to the public. No one could lawfully appropriate it to himself and exclude others from using it in any usual way for any purpose to which it may be desired to apply it. This is fatal to the patent.”

Brown vs. District of Columbia, 130 U. S. 87.

This was a suit relating to wooden pavement, composed of blocks being wedge shape and laid on their larger ends to form grooves to receive concrete or other suitable filling. Referring to Lindsay's patent, Chief Justice Fuller, delivering the opinion of the Court, says at page 99:

“The blocks of the Lindsay patent are of the same shape as those of Cowing, but are of stone, while the latter are of wood, but this was nothing more than the substitution of one material for another without involving a new mode of construction, or developing anything substantially new in the resulting pavement.”

Citing cases. The patents were held void for want of patentable novelty. It will be noted that the filling under Lindsay's patent was small stones, fine gravel, or grout. (Page 100.)

IV.

Pleading and proof that the process patented had been in use or described in some printed publication prior to the application for patent will defeat a suit for its infringement.

Coffin vs. Ogden, 18 Wall. 120.

The court says, p. 124: The prior knowledge and use by a single person is sufficient.

Cohn vs. U. S. Corset Co., 93 U. S. 366.

“To defeat a party suing for an infringement of letters patent, it is sufficient to plead and prove that prior to his supposed invention or discovery, the thing patented to him had been patented or adequately described in some printed publication. A sufficiently certain and clear description of the thing patented is required, not of the steps necessarily antecedent to its production.”

See also *Downton vs. Yeager Milling Co.*, 108 U. S. 466, wherein it was held that a prior publication in a German newspaper substantially describing the process for separating bran and middlings from flour, and being substantially the same process claimed by the patentee in that case, was sufficient to defeat the patent.

In the case of *Stow vs. Chicago*, 104 U. S. 547, on page 551 of the opinion, Mr. Justice Woods uses the following language:

“The evidence is distinct and clear that the invention thus defined was anticipated by the pavement which J. K. Thompson, City Superintendent, laid in the year 1864, at the intersection of North State and Kinzie Streets in the City of Chicago. This piece of pavement was made of wooden blocks,

six inches square, set in rows, on an earth foundation, with spaces between the rows, and the spaces were filled with fine gravel and the gravel rammed. It was put down by him as an experiment. It proved successful and was in use until the great fire in Chicago in 1871. * * * We have here every part of the invention described in the letters patent under consideration, except that it does not appear that the gravel in the spaces between the rows was so compactly rammed as to drive it below the under surface of the pavement into the earth foundation. All, therefore, that is left for the appellant's patent of 1872 to cover is the giving of a few more strokes of the rammer, whereby the gravel filling may be forced into the earth foundation of the pavement. Can this be called invention? * * * Therefore, without noticing the other defenses, we declare our opinion to be that he is not entitled to any relief against the City upon either of the patents on which his demand for relief is now based. His case as presented here has no ground to stand on."

Egbert vs. Lippman, 104 U. S. 333.

Mr. Justice Woods says at p. 336:

"We observe, in the first place, that to constitute the public use of an invention it is not necessary that more than one of the patented articles should be publicly used. The use of a great number may tend to strengthen the proof, but one well-defined case of such use is just as effectual to annul the patent, as many."

Imperial Brass Mfg. Co. vs. Nelson, 194 Fed. 165.

"Knowledge by others of a device before its alleged invention by an applicant for a patent in a form adapted to practical use constitutes an antici-

pation and renders it unpatentable under Revised Statute 4886 (U. S. Comp. Stat. 1901, p. 3382), although it was not used, and such knowledge need not have been more than two years before the date of the application.”

V.

A patentee is conclusively presumed to know the prior state of the art.

In *Mast, Foos & Co. v. Stover Mfg. Co.*, 177 U. S. 485, after discussing the patent in connection with devices theretofore in use, the Court says at page 493:

“Having all these various devices before him, and whatever the facts may have been, he is chargeable with a knowledge of all pre-existing devices, did it involve an exercise of the inventive faculty to employ this same combination in a wind mill for the purpose of converting a rotary in a reciprocating motion? We are of the opinion that it did not. * * * Martin, therefore, discovered no new function, and he created no new situation, except in the limited sense that he first applied an internal gearing to the old Mast-Foos mill, which was practically identical with the Martin patent, except in the use of an internal gearing. He invented no new device; he used it for no new purpose; he applied it to no new machine. All he did was to apply it to a new purpose in a machine where it had not before been used *for that purpose*. The result may have added to the efficiency and popularity of the earlier device, although to what extent is open to very considerable doubt. In our opinion this transfer does not rise to the dignity of invention. We repeat what we said in *Potts vs. Creager*, 155 U. S. 597-608, ‘if the new use be so nearly analogous to the former one

that the applicability of the device to its new use would occur to a person of ordinary mechanical skill, it is only a case of double use.' The line between invention and mechanical skill is often an exceedingly difficult one to draw; but in view of the state of the art as heretofore shown, we cannot say that the application of this old device to a use which was only new in the particular machine to which it was applied, was anything more than would have been suggested to an intelligent mechanic, who had before him the patents to which we have called attention. While it is entirely true that the fact that this change had not occurred to any mechanic familiar with windmills is evidence of something more than mechanical skill in the person who did discover it, it is probable that no one of these was fully aware of the state of the art and the prior devices; but, as before stated, in determining the question of invention we must presume the patentee was fully informed of everything which preceded him, whether such were the actual fact or not. * * * But the statute (Sec. 4886) is inexorable. It denies the patent, if the device were known or used by others in this country before his invention. Congress having created the monopoly, may put such limitations upon it as it pleases."

Crompton vs. Knowles, 7 Fed. 199.

Judge Lowell says at page 203:

"It is a presumption of law that all mechanics interested in upholding or defeating a patent were fully acquainted with the state of their art when they took out their patent, or when they built their machine. This presumption is founded upon the policy like that which imputes to all persons charged with crime a knowledge of the law. It is necessary to the safe administration of justice. Each party

may then be assumed to have borrowed from the other whatever was actually first invented and used by that other.”

Daylight Glass Mfg. Co. vs. American Prismatic Light Company, 142 Fed. 454.

The Court says at page 456:

“In considering the question of the patentable character of the machine in question, we must not be misled by the fact that its use has been attended with commercial success in the way of a large, better and cheaper product, for in the steady advance incident to progress in manufacturing, many no-patentable processes and methods have proved most original and exceedingly profitable, and it must be remembered that everything novel and useful is not therefore necessarily patentable. In taking up the question of the patentability of Cummings’ roller table, we must charge him with knowledge of all that preceded him in the art, for ‘it is a presumption of law that all mechanics interested in upholding or defeating a patent were fully acquainted with the state of the art when they took out their patent, or when they built their machine. * * * Each party may then be assumed to have borrowed from the other whatever was actually first invented and used by the other.’ ”

See

Peters vs. Active Mfg. Co., 130 U. S. 626.

Voigtmann vs. Weis & Ridge Cornice Co.,
148 Fed. 848.

(Circuit Court of Appeals, 8th Circuit.)

The patent was intended to cover any fire-proof window. After discussing the various devices, and showing the use of the different elements of the dif-

ferent devices, but that no device employed all the different elements, the Court says at page 851:

“The foregoing phases of the art were certainly ‘known or used by others in this country,’ within the meaning of Section 4886, Rev. St., before Voightmann’s supposed invention or discovery, and, whatever the fact may be, he is chargeable with a knowledge of all pre-existing patents and devices.” Citing *Mast, Foos & Co.*, 177 U. S. 493.

VI.

Paper patents and abandoned experiments fully disclosing the patented device or process, will defeat patentee’s claim of novelty and invention.

Gayler vs. Wilder, 10 How. 477 (p. 498):

“We do not understand the Circuit Court to have said that the omission of Conner to try the value of his safe by proper tests, would deprive it of its priority; nor his omission to bring it into public use. He might have omitted both, and also abandoned its use, and been ignorant of the extent of its value, yet if it was the same with Fitzgerald’s, the latter would not upon such grounds be entitled to a patent.”

Nat. Chem. & Fert. Co. vs. Swift & Co.,
(C. C. A.), 104 Fed. 87-91.

“The contention that these prior patents must be treated as failures—as mere paper patents of no practicable value is untenable. The very fact of a grant of the patent for the process described is some evidence of its operativeness as well as of its utility when introduced by way of anticipation.”

Westinghouse Air Brake Co. vs. Christensen Engineering Co., 128 Fed. 437-442:

“It may be assumed that Boyden of 1883 and Holleman were mere paper patents, not capable of successful practical operation. But this does not defeat their relevancy as limitations upon the scope of the patent in suit, provided they sufficiently embody the elements and disclose the principle of operation of said patent.” *Pickering vs. Lomax*, 104 U. S. 310.

Sanders vs. Hancock, 128 Fed. 424 (C. C. A. Sixth Circuit), p. 433:

“We have no doubt that Hardy had no knowledge of any of these former patents, for they had not been much extended in use or public notice; but the consequence of their existence no less affects his claim of novelty than if he had known all about them, notwithstanding their obscurity.”

Van Epps vs. United Box Board & Paper Co. (C. C. A. Second Circuit), 143 Fed. 869-874.

Speaking of the rule frequently invoked in the case of mere paper patents, the Court said:

“Where such patents, or the machines constructed under them, embody the principle covered by a later patent; the mere fact that they are not capable of successful practical working because of objections as to the minor matters of detail in construction will not deprive them of their effect as defenses where they sufficiently disclose the invention claimed in the later patent.”

VII.

Commercial use and exploitation of a patented article is of no value whatever where the question of invention is free from doubt.

New York Belting & P. Co. vs. Sierer, 149 Fed. 767.

“The commercial success of a patented thing shows its utility, but does not establish its patentability. A thing may be new and of great utility, but not patentable. It must possess patentable novelty as well. Patentable invention must be disclosed. And here comes in the prior art. Many new and useful contrivances go into use without the intervention of a patent. If the prior art discloses the claimed invention, and shows it to be old, it is immaterial that no one has used it. If all the elements are old, and the working or operation of the combination is old, and the result is old, how can one claim invention by putting it on the market, and building up a large trade in the article? Its utility and commercial value may not have been demonstrated, but to demonstrate these is not invention, nor is it invention to merely substitute a tile of great resilience, elasticity, and durability in place of a stone or brick or iron tile, simply because it is more durable and useful.”

Hyde vs. Minerals Separation, 214 Fed. 100.

In this case Judge Gilbert well states the rule at p. 107, which is peculiarly applicable in the case at bar: “The decision of the Court below appears to have been largely influenced by the consideration that the appellees’ patent had gone into extensive and successful use.

“The fact that a patented device or process has gone into extensive and successful use is often of no

value in determining the question of invention and patentability. It is referred to for the purpose of turning the scales in cases of grave doubt. It is of no value whatever where the question of the invention or patentability is free from doubt, and in any case its value depends largely upon the causes which produced it. It is often due to business ability in manufacturing, exploiting, and advertising, and to the fact that prior conditions have not stimulated development." * * * In *Olin vs. Timken*, 155 U. S. 141-155, it is said: "While the patented article may have been popular and met with large sales, that fact is not important when the invention is without patentable novelty."

And finally, we think the Court, in the case last cited has well summed up the law applicable to the case at bar, at page 109 of the Opinion, in which it is said:

"We hold that to sustain the appellees' patent would be to give to the owners thereof a monopoly of that which others had discovered. What they claim to be the new and useful feature of their invention, as stated by their counsel, is, 'agitating the mixture to cause the oily coated material to form a froth.' As we have seen, that feature was clearly anticipated by the prior art, and when the elements of the appellees' claims are read one by one, it will be found that each step in their process is fully described in more than one of the patents of the prior art, with the single exception of the reduced quantity of oil which they use."

The only step which appellees claim in their patented process was that the rolling after the grout was applied caused an agitation of the mass which expelled the air, and caused the grout to fill the

voids; but the tamping described by Gilman, and by the other witnesses for the defendant and by the complainants' own witnesses, shows that this was not new—that the rolling only accomplished what was done by tamping; and, therefore, there was nothing new in the process of appellees under which they have earned or become entitled to the monopoly which they claim.

VIII.

RULE OF CONSTRUCTION.

Sackett vs. Smith, 42 Fed. 846.

Judge Cox says at page 853:

“Where the patent relates only to a progressive step in a series of improvements, the tendency of modern decisions is more than ever towards a strict construction of claims and a finding of non-infringement in doubtful cases.” Citing many cases.

Lauman vs. Urschel White Lime Co., 136 Fed. 190.

A patent for slacking lime was held void for lack of patentable invention. A slight difference in process which accomplishes the same result is not invention.

Roberts vs. Bennett, 136 Fed. 193.

“Where a patent is void upon its face, or shown to have been anticipated by prior patents, or the presumption of novelty arising from the grant of a patent is overcome by proof of the prior art and by facts of which the Court may take judicial notice, it is the duty of the Court to so instruct the jury in an action for infringement.”

Standard Machine Co. vs. Rambo and Regar,
188 Fed. 323, 3rd Circuit Court of Appeals, Judge
Lanning said at page 325:

“While the policy of our law is to encourage inventions, we should in this age of rapid and marvelous improvements in mechanical appliances, when dealing with patents, be careful to distinguish between those improvements which do and which do not involve real inventive genius. The mechanical art should not be burdened with patents for those improvements which involve only the skill of the mechanic.”

To the same effect—

Gen. El. Co. vs. Winona Interurban Ry. Co., 188 Fed. 77 (Grosscup, 7th Cir. Court App.)

Duncan vs. Cincinnati Butchers' Supply Co.,
171 Fed. 660 (Severens, 6th Cir. Court App.)

Mahn vs. Harwood, 112 U. S. 354-358.

“In cases of patents for inventions a valid defense not given by the statute often arises where the question is whether the thing patented amounts to a patentable invention.”

J. J. Warren Co. vs. Rosenblatt, 80 Fed.
540-543.

“The presumption of patent cannot usurp the province of the Court, as to what constitutes novelty.”

ESTOPPEL.

We contend that the complainants have, by their acts in inducing the officers of the City of Portland to include their process of paving in an ordinance defining the method, manner and kind of street pavement to be laid in the City of Portland, with knowledge that all street improvements must, under the charter, be let to the lowest responsible bidder, waived their patent, and granted the City a license to use the same without the payment of royalty, as no royalty was reserved by complainants.

Section 374 of the Charter of the City of Portland, which went into effect January 23, 1903, and which was the Charter under which the City was acting at the time the events in complainants' complaint are alleged to have occurred, provides that the Council of said City whenever it may deem it expedient, may order the whole or any part of the streets of the city to be improved, and to determine the character, kind and extent of such improvement.

Section 375 provides that when the Council shall deem it expedient or necessary to improve any street or streets within the City of Portland, it shall require plans and specifications from the City Engineer for an appropriate improvement, and the estimates of the work to be done and the probable cost thereof. And if the Council shall find such plans, specifications and improvements to be satisfactory, it shall approve the same and shall by resolution declare its purpose of making said improvement.

Sections 376 and 377 provide for the publication of notices and for remonstrances.

Section 378 provides that if no objection or remonstrance be made and filed with the Auditor within the time designated, the Council shall be deemed to have acquired jurisdiction to order the improvement to be made, and the Council thereafter, and within three months from the date of the final publication of its previous resolution, may, by ordinance, provide for making said improvement which shall conform in all particulars to the plans and specifications previously adopted.

Section 379 of said Charter provides:

“Section 379. Upon the approval of said ordinance by the Mayor, or if the same shall become valid without his approval, the auditor shall present to the Executive Board, at its next regular meeting, a copy of said ordinances, and the estimates, plans and specifications previously prepared by the City Engineer and adopted by the Council. Thereafter the said Executive Board, without delay, shall give notice by publication for not less than five successive days in the City official newspaper, inviting proposals for making said improvement. The Executive Board shall have the power to award the contract or contracts for said improvement and to impose such conditions upon bidders with regard to bonds and securities, and guarantees of the good faith and responsibility of bidders, for insuring the faithful completion of the work in strict accordance with the specifications therefor, and to make all rules and regulations in the letting of contracts that may be considered by said Board as advantageous to the City. Such contract or contracts shall be let to the lowest respon-

sible bidder for either the whole of said improvement or such part thereof as will not materially conflict with the completion of the remainder thereof, but said Board shall have the right to reject any or all proposals received. It shall be the duty of the Executive Board to fix the time in which every such improvement shall be completed and it may extend such time should the circumstances warrant. The said Board shall have power and authority to make all written contracts, to receive and approve all bonds authorized by this section, to provide for the proper inspection and supervision of all work done under the provisions of this Article, and to do any other act to secure the faithful carrying out of all contracts, and the making of improvements in strict compliance with the ordinance and specifications thereof."

The foregoing is a statement of the law in reference to street improvements on and prior to the 27th day of April, 1910, at which time the City, through its engineer and members of the Council, were preparing an ordinance known as Ordinance No. 21,172, which was entitled, "An Ordinance in Relation to the Improvement of Streets and Declaring an Emergency," and in which the City defined the kinds and quality of improvements which were to be adopted by it for the improvement of streets.

Complainants were seeking to establish a paving business in the City and were anxious to have their pavement used upon the streets and in public places, and had employed Mr. George M. Hyland of this City to promote their interests and secure a foothold in the City of Portland for the lay-

ing of their pavement. We call the attention of the Court to the testimony of Mr. Hyland, on page 126 of the record:

“Q. State your name, age, residence and occupation.

A. George M. Hyland, age forty-four years, residence 625 Halsey street, Portland, Oregon, occupation farmer.

Q. What was your occupation in 1909 and 1910?

A. I had charge of the promotion of the Oregon Hassam Paving Company, promotion department.

Q. By that do you mean securing the work?

A. Yes, securing contracts.

Q. How long have you been connected with the Hassam Company in that capacity?

A. Two years.

Q. State whether or not you had anything to do with the incorporation of the specifications for Hassam pavement in the ordinances adopted by the Council of the City of Portland on the 27th day of April, 1910, being Ordinance No. 21172, entitled, “An Ordinance in Relation to the Improvement of Streets, and Declaring an Emergency.”

A. Was that the general ordinance covering paving of streets?

Q. Yes.

A. I asked the engineer to incorporate our specifications with the rest, with the other paving companies and specify the name “Hassam.”

Q. Did you furnish a copy of your specifications as incorporated in said ordinance to the City Engineer?

A. (Page 127.) Yes, I furnished him a copy of the specifications at two different times.

Q. What did you say to the engineer at that time as near as you can recollect?

A. I requested him to include the Hassam specification on the promise that we would furnish the City the same protection as other paving companies; that our people were established in this community now and that we were entitled to the same consideration others received. That is the substance of the conversations I had, as nearly as I can remember at this time.

Q. Previous to the adoption of this ordinance had the Hassam pavement been recommended as standard pavement in the City of Portland?

A. Not by the Council or City authorities. They had declined to pass an ordinance authorizing it and we had been obliged to depend on each individual ordinance for the work.

Q. Had Hassam pavement been laid on the streets of Portland prior to that time?

A. Yes, a small amount of it had been, in certain streets."

Mr. J. W. Morris, called as a witness in behalf of defendants, page 144 of the record, testified that he had been a civil engineer for eighteen years, engaged in railroading, municipal engineering and construction work.

"Q. (Page 145.) What official position have you occupied in the City of Portland?

A. City Engineer for two years from July 1st, 1909, to July 1st, 1911.

Q. Did you hold that position on and prior to the 1st day of April, 1910?

A. Yes, from July 1st, 1909.

Q. Do you recall an ordinance adopted by the City of Portland and by the City Council and signed by the Mayor, No. 21,172, entitled, "An Ordinance in Relation to the Improvement of

Streets and Declaring an Emergency," which was an ordinance defining the manner and setting forth the specifications for the pavement of streets to be followed in the City of Portland?

A. Yes, I recall that ordinance.

Q. Who drew the ordinance?

A. I had considerable to do with it as it was drawn in my office under my supervision.

Q. Were you acquainted with any of the representatives of the Hassam Paving Company?

A. I was acquainted with their manager at that time. I don't recall any of the other members in the company now.

Q. Who was their manager at that time?

A. Mr. George M. Hyland.

Q. Do you recall whether or not in the course of the framing of that ordinance containing the specifications—did it contain the specifications of what was known as Hassam pavement?

A. Yes, it did.

Q. Do you know whether or not that was with the knowledge and consent of the manager of the Oregon Hassam Paving Company?

A. It was.

Q. Do you recall whether or not the manager of the Oregon Hassam Paving Company requested or solicited the incorporation in the ordinance described of the specifications of Hassam pavement?

A. I recollect that Mr. Hyland talked to me on that subject a number of times. It has been some time back but to the best of my memory Mr. Hyland represented to me that Hassam paving was on the streets of Portland, that it had been laid here and would be laid in the future, and as a business proposition he considered that the pavement should now be recognized in this ordinance that I was drawing up at that time.

Q. Were any objections ever made by any member of the Oregon Hassam Paving Company, or any other kindred corporation to that Company, to such specifications being incorporated in that ordinance?

A. Not to my knowledge.”

This evidence was not disputed, nor was it claimed, nor is it a fact that any restrictions were placed upon the Council or upon bidders on such pavement. No mention or reservation of any royalty was suggested or made, and our contention is that such act gave the City the right to lay such pavement without the payment of royalty, and gave it the right to lay it in accordance with the Ordinance, which Ordinance provided that it should be let publicly to the lowest responsible bidder. The patentee had a perfect right to withhold the use of his patent from the City—had a perfect right to lay it on the streets of the City as they had been theretofore doing, as appears by the testimony of Mr. Hyland, and were under no obligations whatsoever to have their specifications incorporated in the Ordinance, but when they did so, it constituted a license to the City to lay such pavement—we would say an irrevocable license.

As said by Mr. Justice Lurton while on the Court of Appeals in the case of *Edison Electric Light Co et al. vs. Peninsular Light, Power & Heat Co. et al.*, 101 Fed. 831, quoting from page 836:

“To restrict the right of a purchaser of an apparatus embodying a patented invention to use it for the purposes for which it is peculiarly adapted, there must appear some express or implied agree-

ment by which the mode, or time or place of use has been limited. * * * It is a general principle of law that a grant necessarily carries with it that without which the thing granted cannot be enjoyed. The limitation upon this is that the things which pass by implication only must be incident to the grant, and directly necessary to the enjoyment of the thing granted. The foundation of the maxim lies in the presumption that the grantor intended to make his grant enjoyable."

And in this case, if the City could not advertise and let the construction of this pavement to the lowest responsible bidder, it could not enjoy the right given it by complainants to lay and use the pavement upon the streets of the City of Portland.

In the case of *Heaton-Peninsular Button-Fastener Co. vs. Eureka Specialty Co. et al.*, 77 Fed. 288, it was also the decision of Mr. Justice Lurton of the Court of Appeals, who used the following language on page 290 of the Opinion:

"Undoubtedly, the general rule is that if a patentee make a structure embodying his invention, and unconditionally make a sale of it, the buyer acquires the right to use the machine without restrictions, and when such machine is lawfully made and unconditionally sold, no restriction upon its use will be implied in favor of the patentee."

To the same effect is the case of *Illingsworth vs. Spaulding*, 43 Fed. 827. On page 831, the learned Judge quotes from Sec. 298 of Walker on Patents, as follows:

"An express license to use a limited or an unlimited number of specimens of a patented article, implies a right to make these specimens and to em-

ploy others to make, and will protect those others in making, them for the use of the licensee.”

So, therefore, it being admitted that the license was given to the City to lay the pavement, with no reservation of royalty, then under the doctrine just enunciated, the employees of the City, or rather contractors, will also be protected in the making of the pavement.

The case of *Anderson vs. Eiler et al.*, 50 Fed. p. 775, is a case where the defendant purchased two mantels, wishing to use them as a design in manufacturing mantels, they being engaged in that business. The patentee sold the mantels with the knowledge that the only object in purchasing was to copy and use his design, and the Court says on page 775:

“He thus sold the mantels with knowledge that the only object in purchasing was to copy and use his design, and did it without objecting to the use contemplated. The inference is therefore, we think, irresistible that he consented to this use. Whether he actually consented or not, however, the circumstances estop his denial. His silence at the time closes his mouth. If he did not mean to consent he should have said so. Such denial now, and a recovery of damages for infringement, would constitute a fraud.”

The case of *Mueller vs. Mueller et al.*, decided by the Court of Appeals, 95 Fed. 155, was a case where a young man engaged in business with his father invented and patented a method of coloring glassware. He and his father used this patented process in the partnership business until the death

of the young man, when the latter's interest was transferred to a third party, and the partnership business was continued. Some years afterwards the widow brought a suit for an accounting on the patent, but the Court held that a license had been given to use the patent, and that she was now estopped from denying.

In the case of *Thomson-Houston Electric Co. vs. Illinois Telephone Construction Co. et al.*, 143 Fed. 534, the Court held:

“The seller of a machine intended to be used in be used by the purchaser in connection with a connection with a device covered by a patent owned by him, and which is inoperative without such device, impliedly grants the right to the purchaser to use it, and is estopped to maintain a suit to enjoin such use as an infringement of the patent.”

In the case of *Thomson-Houston Electric Co. vs. Illinois Telephone Construction Co. et al.* 152 Fed. 631, the Syllabus reads as follows:

“The sale of electric engines, which could only be used by the purchaser in connection with a trolley switch or device covered by a patent owned by the seller, without any restriction in the contract, carried with it an implied license to use such device, not only with the engines so sold, but as well with others bought from other makers, and the seller cannot claim such use to be an infringement; nor is it material that it usually restricted the right to a use in connection with its own engines or cars, where no notice of such custom was given to the purchaser.”

ARGUMENT ON THE FACTS.

The patents, upon which complainants base their suit, claim and describe nothing more nor less than a process of laying a Macadam road and grouting it with a mixture of Portland cement and sand. That these patents are void for want of novelty and invention seems clear from an examination of the

PRIOR STATE OF THE ART

Shown by the following publications:

Murphy Patent, March 8, 1881, Record pp. 155, 331. For pavement formed by layer of broken stone grouted and rolled.

Bayard Patent, Concrete Pavement, April 24, 1888, Record pp. 155, 333. Broken stone rolled, grouted with coal tar resin and unslaked lime.

Hagerty Patent, Concrete Pavement, Oct. 22, 1889, Rec. pp. 155, 335. Foundation of coarse rubble, top coating of thin grout.

Century Dictionary, "Macadamization," Record p. 156.

Vol. 20 Encyc. Brittanica, "Roads and Streets," 1892, Record p. 156.

See "Concrete Macadam" at p. 161.

"Practical Treatise on Limes Hydraulic Cements and Mortars," 1863, Record pp. 164-168.

Warren Patent for pavement or roadway, June 4, 1901, Macadam foundation covered with smaller stone coated with tar—rolled, Record pp. 190, 339,

Roads and Pavements, by Ira Osborne Baker, 1902, Record pp. 168 et seq. As to rollers and rolling see p. 172.

Bituminous Concrete, p. 175.

Asphalt Concrete, p. 176.

Warren's Method, pp. 176-178.

Whinnery's Method, p. 178.

Tar Macadam, p. 179.

Century Dictionary, Grout, Record p. 190.

Report City Surveyor of Rochester, N. Y., 1894, Record p. 197.

Concrete Pavement, Exhibit J, p. 198.

Special Consular Reports, Streets and Highways in Foreign Countries. 1891. Record p. 202.

(a) Artificial Cement Pavement, Record p. 203.

(b) Macadamized Streets—layer of broken stone rolled down with cement, Record p. 203.

(c) Second class streets, Record pp. 203-204.

(d) Bottoming, Record p. 204.

Prior use of Process:

As to grout, rolling, etc.—Edwards, Record p. 149; Brown, Record p. 237; French, Record p. 246.

Pavement and sidewalks in Liverpool; basement in Detroit, Gordon, Record pp. 131, 200.

Rochester, McClintock, Record p. 209.

Pavement, Eureka Wis., Gilman, Record p. 352.

Engine house floor, Michigan, Gilman, Record p. 355.

Factory floor, Grantsburg, Wis. Gilman, Record pp. 356-359.

The processes of constructing roads and highways have been by development and evolution, and not by creation and invention; and as mankind advanced in civilization, necessities for a better means of transportation to and communication with neighborhoods and with the markets, increased, and each succeeding century and generation has made improvements upon the processes formerly used.

The first great advance in road construction of which we have any account was that of the Roman Empire under Appius Claudius, who began the construction from the City of Rome of what was then designated and still bears the name of the Appian Way, and for the process of which construction you are referred to page 156 of the Record.

The next pioneer who stands out as a road builder was John Loudan Macadam, a Scottish engineer, who in the latter part of the 18th and the first part of the 19th centuries brought into use what is known as Macadam road. His process has been improved on from time to time by succeeding generations until we now have what is known as hard surface pavements, the different methods for the construction of which we will enter into in more detail later.

We will now briefly discuss the state of the art of road building prior to the application of Walter E. Hassam for his first patent, and will show that

there is no new method or process used by him in his road building under the so-called patents, and will take up the specifications of the contract between defendants and the City of Portland for the improvement of Commercial Street, and show that every process was old and had been used both singly and as a whole.

The first specification is that the road shall be graded full width down to subgrade. We assume that there can be no claim by complainants that any person cannot grade, so therefore, we will not discuss that portion of the specifications farther.

The next specification is that the roadbed shall be thoroughly rolled with a road roller weighing not less than ten tons, which rolling is to be continued until the street is rolled to the satisfaction of the City Engineer. The use of road rollers in the making of streets is almost as old as street-making itself and there is nothing novel in either the rolling of the subgrade or the rolling of the rock or material used in the construction of the road, and we will take up the question of rolling roadbeds with reference to the rolling of the material placed therein. It cannot be contended of course that the use of broken rock varying in size from two and one-half inches to one and one-half inches, spread on the roadway to a depth of six or eight inches, is new or would be patentable, so therefore the first question that we propose to address ourselves to is whether or not after the placing of this rock any claim could be made for the rolling of the same with a steam roller.

We respectfully call the Court's attention to

page 156 of the record, where a quotation is made from the Century Dictionary, copyrighted 1889-1895, under the head "Macadamization," in a description of the construction of roads constructed by Macadam, as follows:

"In the common process the top soil of the roadway is removed to the depth of 14 inches. Coarse cracked stone is then laid in to a depth of seven inches and the interstices and surface depressions are filled with fine cracked stones.

Over this is placed a bed laid seven inches deep of road metal or broken stone of which no piece is larger than two and one-half inches in diameter. This is rolled down with heavy steam or horse rollers and the top is finished with stone crushed to dust and rolled smooth."

This shows conclusively that for many years prior to the Hassam patents, the use of broken rock and the use of rollers for compacting the same were well known.

In an article entitled, "Roads and Streets," Volume 20, Encyclopedia Britannica, Ninth Edition, published in 1892, beginning on page 158 of the record, the following appears:

"Whenever it is possible a new road should be finished with a roller. The materials are consolidated with less waste, and wear and tear of vehicles and horses is saved. Horse-rollers if heavy enough to be efficient, require a number of horses to draw them and are cumbersome. * * * In Great Britain horse-rollers have to a great extent been superseded by steam road rollers in consequence of the superiority and economy in the work done. A 15-ton roller, 7 feet wide, giving upwards of 2 tons weight per foot, can thoroughly consolidate 1000

to 2000 square yards of newly-laid materials per day.”

This was published in 1892, about fourteen years prior to the issuance of the patent. And quoting from the same article, same volume, page 161 of the record, which not only relates to the rolling but also to the process of grouting, which will be discussed a little later herein:

“*Concrete macadam*, formed by grouting with lime or cement mortar a coat of broken stone laid over a bed of stone previously well rolled, has been tried as an improvement on an ordinary macadamized surface, but not hitherto with much success. * * * It is sometimes made by first spreading a coating of broken stone and consolidating it by a roller, and then pouring over it a mixture of coal-tar pitch, and creosote oil, upon which a layer of small stone is spread and rolled in, and the surface finished with stone chippings rolled in.”

This last reference to “stone chippings rolled in,” also becomes material later on in considering the pea stone coat, which is referred to in the patent. And we respectfully call the Court’s attention to this entire article as it is very instructive and shows the processes of road building that were known prior to the Hassam patent.

We desire to quote from a book entitled, “Roads and Pavements,” by Ira Osborne Baker, Civil Engineer, and Professor of Civil Engineering, University of Illinois, published in 1904, more than two years prior to the application of Hassam for a patent (page 172 of the record):

“Sec. 341. **ROLLING THE STONE.** Rolling is a very important part of the construction of

a broken-stone road. The sub-grade should be rolled to prevent the stone from being forced into the earth. The lower course of the stone should be rolled to compact it, so that the pieces will not move one upon the other under traffic; and the top course should be rolled to pack or bind the pieces into place, to prevent their being knocked out by the horses' feet. Rolling accompanied by sprinkling is necessary also to work the binding material into the interstices so as to make the surface water-tight."

And quoting from the same author, page 178 of the record, in describing the Whinnery method of road building, it states:

"A hot mixture of asphaltic cement and mineral grains is spread over the top of the layer of hot crushed stone in a sufficient quantity to fill the voids in the stone and to level up the unevenness of the surface, the layer being properly graded with paving rakes. When this operation is completed a steam roller of the asphalt type weighing not less than ten tons is to be operated over the surface until (1) the plastic composition is forced into the voids in the crushed stone, (2) the unevenness of the surface is filled up, and (3) the whole mass is thoroughly compressed and solidified. The roadway is then complete, and after giving it time to become cold and hard the street is opened to travel."

We desire to call your Honors' attention to the cross-examination of Mr. Walter E. Hassam, on pages 90 and 91 of the Record:

"Q. 33. You have stated, Mr. Hassam, that for a period of sixteen years you were constantly employed as an engineer in the construction of roads, streets and highways within the State of Massachusetts, what kind of a quality of roads and streets were you constructing?"

A. Macadam, gravel, brick, asphalt, Warren bitulithic, granite block, wood block. I think that is all.

Q. 34. Were you ever in the employ of the Warren Construction Company?

A. No, sir.

Q. 35. You have laid their pavement?

A. As engineer and inspector of it.

Q. 36. But as such engineer you were and are familiar with every detail of the laying of Warren bitulithic pavement?

A. I am familiar with every detail of the laying of the Warren bitulithic paving, but not the mixing process of the top at their plant.

Q. 37. You are familiar with every step in the process of laying macadam pavement?

A. Yes, sir.

Q. 38. In the laying of brick pavement, what kind of foundation did you use, or cause to be used?

A. Ordinarily, concrete foundation, mixed method.

Q. 39. Did you use the same in preparing a foundation for wooden block?

A. Yes, sir.

Q. 40. And in the preparation of a foundation for granite blocks?

A. Yes, sir.

Q. 41. In preparing a foundation where a road or street is to be constructed you usually prepare your sub-grade, do you not?

A. We do, yes, sir.

Q. 42. A certain distance below the street grade?

A. Certainly.

Q. 43. The next process was to roll the sub-grade with a heavy roller?

A. Sometimes, not always.

Q. 44. Now, where the Warren Construction people laid pavement, they laid upon the sub-grade, prepared as I have indicated, broken rock or crushed rock, did they not?

A. They did, yes, sir.

Q. 45. They then rolled the rock with a heavy roller to reduce the voids, did they not?

A. They did.

Q. 46. They afterwards applied their mat or surface of asphalt, or whatever mixture they used, and rolled that, did they not?

A. They did.

Q. 47. They then applied a coat of fine chipped rock after the wearing surface had been applied and rolled that with a roller sufficiently heavy to force it into the surface of the street, did they not?

A. They did."

It will be seen from Mr. Hassam's own testimony that long before he had conceived the patent for the Hassam process, he was thoroughly familiar with—(1) the preparation of the sub-grade; (2) the use of broken rock as a foundation; (3) the rolling of the broken rock to reduce the voids to a minimum; (4) the application of pea stone upon the wearing surface; and, (5) the rolling of the pea stone with a roller in order to force it into the street.

We also call attention in this connection to the cross-examination of Mr. Harold Parker, on page 103 of the record. Mr. Parker had previously testified that he is one of the Directors and First Vice-President of the Hassam Paving Company, com-

plainant herein, with a general charge of the work, outside of construction.

Q. 16. Are you familiar with the construction of what is known as the Warren bitulithic pavement?

A. Yes.

Q. 17. How long have you been familiar with that mode of constructing pavement?

A. I think I saw the first Warren bitulithic pavement laid.

Q. 18. When and where was that?

A. It was in the City of Boston. I should be at a loss to tell you how long ago, but it was when they first got their patents out.

Q. 19. Prior to 1900?

A. It was somewhere about 1900. It may have been a year before or the year after, but within a short time of that date.

Q. 20. In laying Warren pavement the street is subgraded and usually rolled, is it not?

A. You get a firm sub-grade.

Q. 21. Then uncoated crushed rock of about two inches in diameter is laid down to about five or six inches in thickness, is it not?

A. I have never seen that method carried out by the Warren Brothers.

Q. 22. You have never seen them lay crushed rock as a base?

A. And then put the tar on it?

Q. 23. After rolling it.

A. I have never seen it done by the Warren Brothers.

Q. 24. Have you seen roads, prior to say 1905, the base of which was constructed in the manner in which I have described?

A. Yes, sir.

Q. 25. You say you have constructed them yourself?

A. Yes, lots of them.

Q. 26. And after the rock was applied it was then rolled in order to reduce the voids to a minimum, was it not?

A. Yes.

Q. 27. Now, after the road had been constructed practically as far as I have described the process, have you ever known or seen the application of a binder of tar or other bituminous material applied?

A. On the surface of the road so built? Yes.

Q. 28. And after such binder was applied, have you seen it rolled in order to bind it or to drive the binder into the remaining voids of the rock?

A. Yes, by the additional application of some other substance to prevent the tar or other bituminous binder adhering to the roller. But you have got, in my experience, to put something with your tar or oil, whichever you are using, which will fill up and prevent its being too plastic.

* * * * *

Q. 33. After you apply the binder on macadam roads it then should be thoroughly rolled, should it not?

A. Yes.

Q. 34. To force the binder into the voids?

A. The binder is carried into the interstices between the stones by the action of water as well as the process of rolling.

Q. 35. The mixing of sand and cement in parts of 1 to 1, 1 to 2, 1 to 3, and 1 to 4 are not new, are they?

A. No, sir, that is, sand and cement."

GROUTING.

That leaves then but one process in the course of the construction of the so-called "Hassam Pavement," that has not already been shown to have been familiar to every road builder and engineer, and to Mr. Hassam, himself, and that is the process of grouting, or the pouring of a mixture of cement and water into the interstices of the rock in order to form a compact mass.

GROUT.

Grout is defined in the Century Dictionary (page 190 of the record), as follows:

"GROUT. A thin coarse mortar poured into the joints of masonry and brickwork. A casing of stone outside, a foot and a half thick, also covered the rubble and grout work of Rufus: Harpers Mag. LXIX, 437."

"2. A finishing or setting coat of fine stuff for ceilings. E. H. Knight."

"Made with or consisting of grout. Grout wall, a foundation or cellar-wall formed of concrete and small stones, usually between two boards set on edge, which are removed and raised higher as the concrete hardens."

Grout. To fill up or form with grout, as the joints or spaces between stones used as grout."

"If Roman, we should see here foundations of boulders bedded in concrete and tiles laid in courses, as well as ashlar facing to grouted insides."

Grout and its use is also described in the article quoted from the Encyclopedia Britannica, on pages 161 and 162 of the record; and further on pp. 165, 168 of the record.

The process of grouting is also again described on page 180 of the record, in an excerpt taken from Baker's "Roads and Pavements," in the description of Tar Macadam.

Mr. Robert S. Edwards, a graduate of a technical school in Boston, on pages 147, 148 and 149 of the record, testifies:

"Q. Have you ever made any study of grouting, a manner of mixing and using cement as a grout?

A. I have practically spent the best part of my life since graduating from the university in becoming expert in that work.

Q. I would ask you whether or not outside of the process used by the Hassam Paving Company you are familiar and have been with the process known as grouting?

A. Yes, I am very familiar with that process. In fact have given it considerable study and thought and time in conjunction with the Portland Railway, Light & Power Company's new dam where I had the proposition come up of solidifying the foundation before we could build the dam. And after investigating the various methods for doing this and the various machines, we decided to use what is known as liquid cement grout forced in the rock under pressure as the only satisfactory existing method to employ to fill up the interstices or voids in the rock foundation.

Q. I will ask you to describe the process of grouting or mixing of the cement.

* * * * *

A. The only difference in the method is, sometimes they use a richer grout than other times. The process of manipulation is practically the same. The constituents used in grout are of course cement,

sometimes they use it one to one, or one to two—one part sand to one part cement—or one part cement to two parts sand, according to the richness desired. The grout is generally mixed in a mixing machine to a consistency that will flow easily and then placed in tanks which are put under pressure and the grout forced from the tanks through tubes or pipes into the material or rock, or whatever it may be that is going to have its voids filled up or solidified. That is the general process used, and it has been used in several of the largest engineering works, and pieces of construction in the United States. For instance, the Brooklyn-New York subway—their steel cylinders were filled up with loose rock of different sizes, leaving an opening from the cylinders into the interior of the tube and after the steel cylinders were placed they attached these pipes or hose which were connected with the power grouting machines and the grout was forced into the rock until it filled up the voids. The Catskill aqueduct work used practically the same identically process, and several large engineering operations abroad have used it and it has become very common now.

Q. How long has that process been known to engineers?

A. The process probably has been known for at least eight to ten years, probably much longer, but within the eight to ten years it has been used very commonly in engineering work.

Q. In the construction of a street or roadway where it becomes necessary to fill the voids with cement, a pavement that has a rock foundation, would you say it required any amount of skill or technical knowledge to pour the grout on the rock and force it into the voids by pressure from a roller?

A. I would say that was the simplest form that is known in the application of grouting."

We also call the attention of the Court to the United States Patent issued to John Murphy, of Columbus, Ohio, dated January 26, 1881, and appearing upon page 331 of the record, which was a patent for a street or roadway, and in the description of the construction, which process is very similar to the alleged Hassam process, the following appears:

"After ramming, the interstices are filled to the top with grouting, thus making a level surface, which completes the pavement proper. Upon its surface a coat of sand is then spread, and the pavement will be ready for use in from twelve to twenty-four hours."

He then described the process of the mixing of the grout, and we respectfully call the attention of the Court to the cut or drawing appearing on page 330 of the record, for the purpose of showing that the principle of construction under that patent was almost identical so far as the foundation is concerned, with the Hassam process.

Mr. Walter E. Hassam on cross-examination, page 94 of the record, testified as follows:

"Q. 65. In your answer where you refer "1 to 2", "1 to 3", or "1 to 4", you mean one part of cement to two, three and four parts of sand, do you not?

A. I do.

Q. 66. This mixture of cement is not new, is it?

A. As a grout?

Q. 67. No, the proportions.

A. No, sir.

Mr. Arthur S. Browne, a patent expert and employee of complainant, on cross-examination, page 237 of the record, testifies:

Q. 5. What do you understand to be the meaning of the word "grouting," or "grout"?

A. I agree with the Century Dictionary definition quoted in the record.

Q. 6. Then there was nothing new or novel in the making of a grout consisting of Portland cement, sand and water, was there?

A. No.

Q. 7. How long did you know, prior to the application for the first Hassam patent, was the process of grout by pouring in extra sand, cement and water upon broken rock, slag, or other material for the purpose of forming a concrete, been known or used?

A. At least as early as the Hagerty patent, 413, 278, Oct. 22, 1889, which was about 16 years before the first Hassam patent. There may be earlier instances, but this is the earliest one shown by the publications and patents in evidence, and I have no earlier instance in mind."

Mr. Arthur W. French, Professor of Civil Engineering at the Worcester Polytechnic Institute, called as a witness on behalf of complainants, on page 246 of the record, testified on cross-examination as follows:

"X-Q. 7. Mr. French, you are familiar with the process of grouting with grout consisting of Portland cement, sand and water, are you not?

A. I am.

X-Q. 8. How long have you been familiar with this process?

A. About twenty years.

X-Q. 9. How long have you been familiar with the use of grout by pouring on broken rock, slag, or other material for the purpose of forming a concrete?

A. I should say about ten years.

X-Q. 10. Where the grout is thin and the broken rock would consist of pieces from one and a half to three inches in diameter, will not the grout by gravity permeate the entire mass?

A. That will depend a great deal upon the thickness of the laver of broken stone, a thickness of from four to six or eight inches, if the stone contains a large percentage of quartz, I should expect a thorough permeation of the grout. With greater thicknesses, grouting becomes a very unthorough, uncertain method for filling broken stone.

X-Q. 11. You mean greater than eight inches?

A. Yes."

Grouting is also described in the Hagerty Patent on page 335 of the record, where in an application filed in the Patent Office, October 22nd, 1888, by Thomas Hagerty for the making of Concrete Pavement, a portion of his process is set forth as follows: "By laying a sufficient thickness of coarse rubble and a top coating of a thin grout prepared with sand and cement, or with evenly-laid stone blocks having a grout of cement and sand poured between the inter-spaces."

While there is other evidence contained in the record in reference to grouting, we think the foregoing is quite sufficient to establish the process of forming concrete by grouting, so therefore, it took no inventive genius on the part of Mr. Hassam to discover this portion of the process.

PEA STONE.

There is one other minor process that it might be well to notice briefly, and that is the adding of pea stone to the surface and rolling the same to imbed it into the concrete or top coating. We call your attention to the article quoted in the record from "Roads and Pavements," on page 177, where in the description of the construction of an asphalt pavement, the following is included:

"On top of the asphalt macadam is spread a layer of asphaltic cement, partly to seal the surface against the entrance of air and water, and partly to bind together with fragments forming the wearing surface. While the surface of the asphaltic cement is still sticky there is spread over it a thick coat of fine stone chips, which are then rolled and the road is ready for traffic."

The same process is described at the top of page 181 of the record in the description of the construction of a Tar Macadam pavement.

Mr. Hassam testified on page 92 of the record, on cross-examination, in describing the process of road building by the Warren Construction Company, with which he was familiar, as follows:

"Q. 47. They then applied a coat of fine chipped rock after the wearing surface had been applied, and rolled that with a roller sufficiently heavy to force it into the surface of the street, did they not?"

A. They did."

Showing that Mr. Hassam himself was familiar with that process long prior to the application for his patent.

And on page 98 of the record, the same witness testified:

“Q. Now, the Warren Company also use the pea stones, do they not, and have for many years, as top surface?

A. Yes, sir.

Mr. Arthur S. Browne, the expert patent witness called by complainants, on page 237 of the record, testified:

“X-Q. 8. The use of fine pea stone for the top surface or finishing of a road has been used for a great many years, has it not, dating back to the construction of Macadam and Telford pavements?

A. Yes.”

We have shown by uncontradicted testimony, and by the admissions and testimony of complainants and their witnesses, that every process used in the construction of the so-called Hassam Pavement had been known and used in the construction of roads and streets for more than ten years prior to the application of Hassam for a patent, and some of them more than fifty years prior to the date of said application.

We will now take up the testimony to show that these different processes have been *combined* by others in the construction of roads and streets, long prior to the Hassam patent.

We will first take up the Murphy Patent, dated March 8th, 1881, and appearing upon page 331 of the record, in which he describes his process as follows:

“In constructing the pavement the first step is to prepare the road-bed. If this be wet or springy

soil it should be underdrained, and, is, in any case, to be properly graded. Upon such bed I spread a layer of broken stone or slag, B, to the depth of about six inches, which is *grouted and then rolled* with a heavy roller, to form a firm and solid foundation. If the soil is dry and solid the broken stone may be dispensed with and a thin layer of gravel employed instead, which must, however, be well rolled. Having thus formed a firm bed or foundation, the next step is to deposit thereon a layer, C, of pulverized slag and lime mixed with sand. This layer should be about two or three inches in depth. The stone blocks A are then laid in courses so as to break joints, and the interstices are filled with grout, 1, to the depth of two or three inches from the bottom of the blocks. I next spread clean screenings over the stone surface until the interstices are filled or nearly so. This filling, 2, is then packed or pressed until it has a depth of one or two inches over the grouting. Its function is to keep the blocks steady in their place while being rammed, which is the succeeding step. After ramming the interstices are filled to the top with grouting, 3, thus making a level surface, which completes the pavement proper. Upon its surface a coat of sand is then spread, and the pavement will be ready for use in from twelve to twenty-four hours."

It thus appears that Mr. Murphy used the broken rock, the grout, the rolling, but used sand upon the top instead of pea stone. Of course this portion of it was intended as the foundation, but it must be remembered that was Hassam's first idea in obtaining a patent, to prepare a foundation only, and it was not intended as a wearing surface, and Murphy's process up to that point is almost identical with that of Hassam.

The Bayard Patent, dated April 24th, 1888, appearing upon page 333 of the record, is very similar, with the exception that either tar or cement may be used for filling the interstices, but the coarse rock, the rolling, and a grout are all used in its construction.

The Hagerty Patent, dated October 22, 1889, and appearing upon page 335 of the record, consisted of laying a foundation of coarse rubble to a sufficient thickness and adding a top coating of a thin grout prepared with sand and cement poured between the inter-spaces, with a top-dressing by any well known method to be added. In this patent the rolling and top dressing of pea-stone is omitted.

In the Warren patent, dated June 4, 1901, page 339 of the record, all of the processes used in the Hassam pavement are used in the Warren pavement, except the grouting, and Mr. Hassam testified as heretofore shown, that he was familiar with the process used by the Warren people when he was City Engineer of the City of Worcester.

Mr. George W. Gordon, who has resided in Portland for about twenty-two years, and formerly lived in Liverpool, England, testifies, on page 130 of the record, that he left Liverpool when he was about twenty-four or twenty-five years of age, and testified that he had seen pavements laid in Liverpool, England, and then testified as follows:

“Q. Will you describe what you term concrete pavements according to your observation, what you saw at that time?

A. There the rock was mixed by hand usually

then we put the mixture down on the streets and rolled it, or tamped it where we could not roll it; we used to get it graded of course, and then laid the foundation with the cracked rock or stone, and then put the cement on top of it, very much the same as they do it here.

Q. Are you familiar with the so-called Hassam pavement here?

A. Yes, I have seen it laid frequently.

Q. Will you state whether or not any of the pavement you saw laid there was at all similar to the so-called Hassam pavement laid here, and describe it if so?

A. The only difference between the Hassam pavement and the pavement that I have helped to lay in my boss's yards in Liverpool; he had large yards there we used to break the rock up with hammers; we would take all the refuse from the buildings and break it up with the hammer and pour cement and sand into that in the same manner the Hassam Paving Company do their work, with this exception: we had to put the cement and sand into the rock before rolling and roll it afterwards, that gave the cement a chance to get all around the rock. The way they do Hassam here, they lay the rock down without wetting it and then they take a roller and compact it by rolling until it loses about one-third of its volume and then when you come to pour on the sand and cement it does not cover the entire rock, it is not distributed evenly. They would not let us do it that way in the old country.

Q. Was that sand, cement and water a fluid mixture?

A. Yes.

Q. That was poured over the rock?

A. Yes, and we used to take a little hand-roller and four boys would get hold of it and roll it

back and forth until it was well rolled and compacted.

Q. In that kind of pavement were the voids or interstices filled with grout?

A. Yes.

Q. And rolled down afterwards?

A. Yes.

Q. That was forty years ago?

A. Yes, and that was done before my time, according to the old methods, the engineers used grouting methods long before my time. You can find that right in history where they mixed the stuff and put it on in very much the same way. It is an old, old method, this grouting, and can be found way back in the history of the Roman Empire; it was used then. Government engineers have used it for years in their construction work. There is nothing new about grouting."

And on page 200 of the record, the same witness being recalled, testified:

"Q. Since you were a witness here you have made some statements to me about some work you did in Detroit, will you tell what that work was and when it was done?

A. I was building a house there, about a block and a half north of Woodward avenue and west of the river, for Henry Engelbert, architect; it was a brick house and Handler Brothers were the contractors for the brick work, and I put this very same kind of what is called grout in the concrete basement of that house.

Q. Describe how you did that?

A. They gave us the privilege sometimes in concrete work of taking the old broken brick and stone and breaking them up and using them for concrete work, and we used them in this basement, and after breaking them up we took sand and ce-

ment and made a grout and poured it on there, just exactly the same kind of grout that is used now. The broken stone and brick were spread on the basement floor and leveled up after the basement floor was got to the proper grade; they would put down the stakes to get the thickness and after we got the thickness we took the stakes out and poured in the grouted cement.

Q. How was this grout made?

A. Mixed sand and cement together with water and poured it on, and we took a tamper and tamped it well, and we used about equal quantities of sand and cement. It was an ordinary thing to use that sort of grout then and I never thought anything of doing it.

Q. This broken stone and brick covered the whole basement and over that you poured the sand, cement and water mixed together, as you have described?

A. Yes, that is a regular concrete floor.

* * * * *

Q. When was this?

A. About thirty-two years ago, as near as I can recollect."

Mr. Gordon is a reputable citizen and is a resident and property holder within the City of Portland. He gave dates, times and places where this process he testified to has been used.

This uncontradicted testimony was given, as appears by the record, on November 12th, 1912, and complainants had ample time to make examination and refute the statements made by Mr. Gordon if they were untrue.

Mr. A. C. Gilman, called as a witness in behalf of defendant Reliance Construction Company, page

351 of the record, testified that he was born in Eureka, Wisconsin, in 1860; has been engaged in mining, lumbering, farming and railroad work; and in answer to the interrogatory as to whether or not he had ever seen any pavement that was laid with crushed rock rolled or tamped, with a grouting of Portland cement, water and sand poured over it, answered:

“A. Yes, I have seen that; it wasn't called Hassam, though; it was a foundation for other kinds of pavement, of cedar block pavement, generally, as a base of pavement the same as Hassam—the foundation. And I have seen sidewalks built of it and basement floors and engine house floors, factory floors made in the same way.

* * * * *

A. It has been years ago, I saw an approach to a blacksmith shop made from it, when I was 14 years old; that was Eureka, Wisconsin. That was made from the street to the blacksmith shop; it was an approach to the shop. It was about 25 feet from the walk to the shop—20 feet wide, probably; about 20 feet square. I saw that when it was being made.

They excavated about eight inches deep to receive the pavement, they then pounded up native stone there into suitable sizes and filled the excavation with loose rock, and then tamped it with a tamp bar or a block of wood, and then made the mixture of cement and sand and poured it over this stone and then swept it in and mixed it in a liquid form; that is quite a thin solution, with water and cement and sand, so that it could be poured in and fill all the voids in the rock, and he then tamped it to be sure that the air was expelled and the mixture was made a solid mass and then they would mix up another batch and pour in and after it was finished he

smoothed it up with a trowel or a piece of wood; amounted to the same thing as the present Hassam pavement.

* * * * *

Q. To your knowledge how long was that pavement in existence; that is, as long as you personally knew about it?

A. Oh, I saw it ten years afterward, but it must have been—the building burned about twenty years afterwards, and I understand there was another building erected on the ground.

* * * * *

Page 354:

Q. Do you recall the name of the man who laid that?

A. No, I could not; he was a Russian. I can spell the name, I think, but I could not pronounce it.

Q. Well, you might spell it.

A. W-a-r-y-z-e-n-a-k; we used to call him "Washnaw" for short; that is as near as I can get to it.

I have laid two engine floors myself in the same manner and one factory floor.

There was one at Crystal Falls, Michigan; well, it was in front of the boilers, what we call a fire hole, laid in the same manner, excavated first and filled with rock, brick bats, and then a mixture of cement and sand and water poured over it and smoothed off.

It was tamped several times, both before and after grouting. That engine floor—engine house floor at Crystal Falls, Michigan, was, I should judge, eight feet by twelve feet.

I built an excelsior factory at Grantsburg, Wisconsin, with a boiler house attached; the floor of the factory had a similar floor to the Hassam

pavement, and also the fire hole in front of the boiler.

Q. How large a floor was there at the excelsior factory; what was the size of it?

A. About 24x40 feet.

Q. And how did you make that?

A. Cleaned off the loose soil and tamped the sand—sandy country there—tamped the sand and then put in crushed rock. Bought a carload of crushed rock.

Q. What size?

A. From half an inch diameter to three inches diameter, irregular shape, spread over about five inches of this rock and had men tamp it with tamping bars and mauls, and then mixed a thin solution of cement and sand and water and flooded it over the rock. We had boards around the rides of the floor to keep the water from running out—the grouting, and then tamped it and let it harden a couple of hours, and then finished it by rubbing with trowels and wooden straight edges.

Q. How did you pour the grout?

A. With pails or buckets; mixed up a large batch and then men would carry it in pails and pour it on and other men would sweep it in with brooms.

Q. When was that built?

A. That was built the year following the Spanish War, 1899; that is still there at Grantsburg, Wisconsin. The only mill there; only excelsior mill there; just on the edge of town.

Q. Are those the only instances in which you have personally laid or supervised the making of the kind of pavement described that you now recall?

A. I used it as a starting of a foundation in a building; I don't recall any floors.

Q. Well, where have you used the same process in starting foundations of buildings?

A. In starting foundation walls it is quite common to use this method in making footings of walls.

Q. You mean by that putting in crushed rock and then pouring in grout over it?

A. Yes.

Q. Where have you used such methods?

A. In Minnesota with the Iron Range Railroad, and I during that time laid several foundations for steel bridges, water tanks, and in depots. It is quite common to start the wall in that manner.

On cross-examination, page 361, as to where witness had seen pavements laid prior to 1884, the witness having testified that he had seen it in basement floors, dwelling house basements, warehouse floors, in excavations for scales, for track scales, railroad track scales, the following question was propounded:

Q. We are speaking now of prior to the time you laid the pavement for the engine house that you have spoken of, in 1884; had you seen it laid anywhere else except the blacksmith shop prior to 1884?

A. I don't recall any place. It is in common use, though, the concrete mixture. Yes, I can remember another incident. A man laid sidewalks around his place, built a house in almost the same way.

Q. Where was that?

A. That was Eureka, Wisconsin.

Q. Eureka.

A. But instead of using cement he used lime mortar; made a grouting of lime mortar.

Q. What was his name?

A. His name was Hager.

Q. Does he live there yet?

A. No, he has been dead years ago; I think the house is still standing; was the last I knew.

Q. Where is the house?

A. Well, it is on what we call Hager's Hill in Eureka, right on the edge of town."

The testimony of this witness is material to show that the process of the construction of the concrete upon which Hassam claims his patent, and he only claims it upon the process, was familiar to other persons long prior to the date of his alleged invention, and by comparing the process used by Gilman, the Court will see that it is substantially the same process used by Hassam.

McCLINTOCK'S PAVEMENT.

The most conclusive evidence against complainants' contention is the use of this identical pavement in Rochester, New York, in 1894, prior to June 1st of that year, being an extract from a printed report addressed to the Executive Board of the City of Rochester, and signed by J. Y. McClintock, City Surveyor, and the extract appears upon page 198 of the record.

In order to place the two processes concretely before your Honors we will place the Hassam Process described in Pat. No. 819,652 beside that of the process described and used by McClintock.

Hassam Process, page 255 of the record, line 59:

"The street is first dug out to the proper depth for the subgrade, which is rolled, if needed. Broken stone or gravel is then spread to a proper depth and

rolled with a steam-roller or compressed by any suitable means until the voids between the stones are small and the surface even. It will be noted that as there is no coating of cement, bituminous, or other material on the pieces of stone they can be compressed very close together and solid, and the voids left between them will be extremely small. When the stone or gravel has been compressed to the desired closeness and firmness, it is grouted with a mixture of cement, sand, and water, which may not be prepared until immediately before it is to be used and which does not require excessive handling, like the mixture for concrete, and therefore does not suffer from being handled by careless workmen. All the voids are filled with the cement in the grouting operation. The cement is then allowed to stand until perfectly hard, and a solid foundation is obtained for brick, stone or wood block, or any other form of paving which will sustain a heavier load than if mixed concrete is used. Grouting is not only a great improvement over the old method of mixing concrete by hand, but it reduces the cost of construction."

McClintock's Process, page 198:

"Concrete Pavement: There are many miles of streets where a cheap pavement is requisite, and where macadam with trap rock would be suitable except that it seems desirable to get rid of the small amount of mud which is usually present, and to have a surface that can be washed off clean. To meet this requirement we tried in 1893 the following on South Fitzhugh street north of the canal. *The surface of an existing macadam pavement was picked off and a layer of trap rock, six inches thick in the middle and two inches thick at edge of paved gutters, was put on and thoroughly rolled with a steam roller. After this was done, instead of put-*

ting on a binding material and rolling that in as usual, Portland cement grout, one of sand to one of cement, mixed to the consistency of cream was carefully poured in so as to fill all the voids between the broken stone and formed a solid matrix to hold each stone firmly in position. The stone was thoroughly wet just before pouring in the grout. One barrel of cement was used to each 8 7-10 square yards of pavement. After the mortar had set for twenty-four hours, sand was thrown over the surface and water sprinkled upon it, and all travel was kept off it for nine days. This has been down eight months and already shows that the size of stone used was too small; it would all pass through a one and one-half inch ring. The stones are so small that the calk of a horseshoe throws out bodily a stone sometimes. I believe it will be well to try this again with stones which will pass a three-inch ring and will not pass a two-inch ring. The cost of this pavement was one dollar per square yard."

The deposition of Mr. McClintock was taken in March, 1913, which deposition appears on page 207 of the record, in which he testifies that he is a resident of the City of Rochester, New York, is a Civil Engineer, age sixty years, and that in 1893 he was City Surveyor of Rochester, New York; that he prepared the original report marked Defendant's Exhibit "J," in 1894

Answer: It was printed under my supervision and probably one or two thousand copies were issued. Copies were sent to engineers, highway officials in nearly every city in the country. One or two copies were filed in the library of the American Society of Engineers and to the City officials of the City of Rochester.

* * * * *

Eighth Interrogatory: Read the paragraph on page 5 of Defendant's Exhibit "J," under the heading "Concrete Pavement" and state whether or not all the facts stated in that paragraph are true of your knowledge.

Answer: All of the facts there stated are true."

This process used by Mr. McClintock twelve years before Mr. Hassam's application for patent is identical in every respect with the Hassam patent, except that McClintock did not roll the pavement after grouting, but that would be a matter of choice with the engineers, and the record will disclose there is some dispute as to whether or not the mass should be rolled after grouting, but certainly Mr. Hassam was not entitled to a patent upon McClintock's process by the mere addition of rolling. It is true that McClintock added sand instead of fine pea stone, but that is also a matter of choice, and it required no inventive genius to substitute one material for another, where the material performs the same office.

We are able to almost place the printed report of McClintock in the hands of Walter E. Hassam. Mr. McClintock testified that he sent the report to the engineers of all the principal cities, and it is hardly probable that he would overlook the City of Worcester with a population of about 160,000 people, and in a neighboring state.

Mr. Hassam testified, page 81 of the record, that he graduated from Norwich University in Vermont in 1887, with degree of Civil Engineer, Master of Science, and served sixteen years as Assistant

Engineer in the City of Worcester, having charge of the road construction and the water department as an engineer. So therefore he occupied that position in 1894 at the time of the publication of McClintock's report, had charge of the road department, and the conclusion becomes almost irresistible that he got his idea for his patent from the McClintock report, because he has copied it in toto in his first patent, page 255 of the record, with the addition of the rolling for the purpose of compressing the chipped stone into the wearing surface. Mr. Hassam added nothing new to the idea of McClintock; he took his idea bodily and employed it for the purpose of getting a patent, thus creating a monopoly upon a paving system or process that was well known long prior to the date of his application for a patent, and it is a fraud upon the public to require it to pay from fifteen to fifty cents per yard royalty to this Company for leave to construct a street or highway by the simple methods employed by the Hassam people, thus creating a burden upon the taxpayers and property holders which they should not be called upon to bear.

It is conclusively established by the testimony that the witness McClintock in 1893, had employed the identical process, afterwards claimed as an invention by Hassam under his first patent, upon the public streets of the City of Rochester, New York. He had thereby given the public the right to use it for all like purposes to which it was adaptable, and no one could by obtaining a patent therefor, deprive the public of the right to use that process.

As Mr. Justice Woods says in the case of *Blake vs. San Francisco*, 113 U. S., p. 679, on p. 682 of the Opinion:

“It follows from this principle that where the public has acquired in any way the right to use a machine or device for a particular purpose, it has the right to use it for all the like purposes to which it can be applied, and no one can take out a patent to cover the application of the device to a similar purpose.”

And the fact that Hassam finally added the rolling of the mass after grouting, and the pea stone for top dressing, did not constitute invention, for the reason that both processes were old and well known as we have heretofore shown, and were such additions as would suggest themselves to the ordinary road builder.

If McClintock had obtained a patent for his process as outlined by him in his printed report, Hassam could not have successfully resisted a suit for infringement. It would not have been sufficient for him to claim that he had improved on the process by adding the rolling and pea stone. The basic idea of the process was furnished by McClintock who, as he testified on page 210 of the printed record in answer to the interrogatory as to what experience he had had prior to 1893 in constructing roads and pavements:

“I have practiced civil engineering since 1869 and up to 1880, was employed on general engineering work, and especially railroad work, and during the time was for a number of years Chief Engineer of the old original Boston & Maine R. R. and

was familiar with the construction of pavements around stations and station yards. I was also familiar later with the experience of the Massachusetts Highway Commission in its early studies, during which time my brother, W. E. McClintock, was a member of the Commission."

And in answer to the interrogatory on the same page as to whose suggestion the laying of the concrete pavement described by the witness was done, answered:

"As far as I know the proposition originated with myself. The impelling consideration came from the fact that I had recently become City Surveyor, and macadam pavements had become so unpopular that it required a vote of fifteen out of sixteen aldermen to pass an ordinance for such pavement in the City of Rochester, because many miles of such pavement had been built here with soft local stone which would usually wear out so as to be scraped off by the Highway Department the following year. I was familiar with what was being accomplished in New Jersey and Massachusetts in the use of trap rock and so making a successful macadam road. Being familiar with the use of cement and being impressed by the possibilities of using Portland cement which then had first been reduced to a price warranting its use in highway construction, it was very natural that I should try it as described. I made a communication to the Board of Aldermen discussing the subject and emphasizing the importance of trying it and asking them to allow me to try it experimentally in the manner described so that all of us could have the benefit of such experiment."

McClintock was not seeking a patent and his explanation goes to show that his ideas and thought

upon the subject were a part of the evolution of road building; and it was further suggested to him for the reason that the cost of cement had been reduced in price so that it could be utilized for road building purposes, the price theretofore having been prohibitive, which fact perhaps accounts for the reason of its non-use by road builders prior to that time.

But had McClintock taken out a patent and never done anything more than to construct the one street testified to, or not to have constructed a street at all, it would have been sufficient to defeat complainants' patent, for the reason that the patent laws are only intended to reward those who generate a new idea, not those who copy the ideas of others; and it is not invention for one merely to copy the specifications of a patent and put it into practical use, even though the original inventor has not seen fit to use it.

As is well said by Mr. Justice Gilbert in the case of *Hyde vs. Minerals Separation*, 214 Fed., p. 100, quoting from p. 105 of the Opinion:

“A paper patent if it fully describes an invention, whether it be a machine, device, or process, is just as effective to show anticipation, as a patent which describes an invention which has gone into extensive use, for a presumption of operativeness and of some utility attends the granting of letters patent.”

And the learned Judge quotes with approval from *Roberts vs. Ryer*, 91 U. S. 150, as follows:

“A change only in form, proportions, or degree, doing substantially the same thing in the same way,

by substantially the same means, with better results * * * is not such an invention as will sustain a patent."

He also quotes, *Fried, Krupp, Aktien-Gesellschaft vs. Midvale Steel Co.*, 191 Fed. 588 (112 C. C. A. 194) as follows:

"But mere useful and economical administrative methods, however valuable, while they may and usually are incident to invention, do not themselves constitute invention."

Further than this, Mr. Hassam, the alleged inventor, had himself, while in the employ of the City of Worcester, used this same process a year prior to his application for a patent.

We call the attention of the Court to page 93 of the printed record, where the following questions were put to Mr. Walter E. Hassam on cross-examination:

"X-Q. 56. When did you first begin the construction of what is here referred to as "Hassam pavement?"

A. In 1905.

X-Q. 57. Where?

A. In the City of Worcester.

X-Q. 58. What quantity of pavement did you construct in 1905 in the City of Worcester?

A. One street.

X-Q. 59. Where, that is what block?

A. Salem street.

X-Q. 60. Between what other streets?

A. Between Myrtle and Madison and Park streets, with a granite block surface on them.

X-Q. 61. Was that street constructed under contract with the City?

A. No, sir, it was not.

X-Q. 62. Was it paid for by the City?

A. No, sir; it was done when I was Street Commissioner, by permission of the Mayor of Worcester.

X-Q. 63. At the expense of the City?

A. Yes, sir."

He did not then claim any patent. He had not filed a caveat and had given no notice to any one that he claimed any invention or discovery of any new process for street paving. The street was paid for by the city, became public property, and at least for one year it was public property which any one could have laid, any one could have copied, but which no one could have patented. And in this connection we desire to call the attention of the Court to the case of *Elizabeth vs. Paving Company*, 97 U. S. 126, where on p. 136 of the Opinion, the Court says:

"Had the City of Boston or other parties used the invention by laying down the pavement in other streets and places with Nicholson's consent and allowance, then indeed the invention itself would have been in public use within the meaning of the law."

It must be remembered that he did not anywhere testify nor did any other witness testify as to any experiments by Mr. Hassam, any study, thought or care used by him in formulating this process which is at least very usual in patent cases. There is always a certain experimental stage, accompanied by either success or failure until the perfected article or process is finally evolved, but nothing of that kind appears in this case, and the only testimony on that point is the testimony of Hassam as to laying

this street at public expense, and for which he was supposedly drawing a salary; and we are forced to the conclusion that Mr. Hassam took the idea bodily from the printed report of McClintock, who testified that he sent copies to all of the principal cities, and it is not likely that he would have overlooked the City of Worcester, with 160,000 inhabitants, and Hassam was then the City Engineer in charge of the construction and improvement of streets and highways; and the further fact that Hassam in his first patent does not deviate in any manner from the process so laid down by McClintock.

Almost the entire testimony of complainants' witnesses is reduced to the exploitation by the Hassam Company of this process, showing the number of states where the same has been used, and the number of miles of highway laid, together with extensive advertising and the amount of money invested; but exploitation is not invention. It may and does tend to show the usefulness of the article or process and the advertising ability of those handling it, but does not in any way tend to show that those who are exploiting it were the original inventors.

As Mr. Justice Gilbert well says in the case of *Hyde vs. Minerals Separation*, cited supra, on page 107 of the Opinion:

“The decision of the Court below appears to have been largely influenced by the consideration that the appellees' patent had gone into extensive and successful use. The fact that a patented device or process has gone into extensive and successful use is often of value in determining the question of

invention and patentability. It is referred to for the purpose of turning the scales in cases of grave doubt. It is of no value whatever where the question of the invention or patentability is free from doubt, and in any case its value depends largely upon the causes which produced it. It is often due to business ability in manufacturing, exploiting, and advertising, and to the fact that prior conditions have not stimulated development." Citing the case of *Olin vs. Timken*, 155 U. S. 141, where the Court said: "While the patented article may have been popular and met with large sales, that fact is not important when the invention is without patentable novelty." Citing also the case of *McClain vs. Ortmyer*, 141 U. S. 419, where the Court said: "That the extent to which a patented device has gone into use is an unsafe criterion even of its actual utility is evident from the fact that the general introduction of manufactured articles is as often effected by extensive and judicious advertising, activity in putting the goods upon the market, and large commissions to dealers, as by the intrinsic merit of the articles themselves."

IN CONCLUSION.

Take the process described in the *Murphy*, *Hagerty*, *Bayard*, and *Warren* patents, the process of making concrete macadam described in the *Encyc. Britannica*; tar macadam described by *Baker*, the *McClintock* process, and compare each of these on the one hand with *Hassam's* patents and claims on the other; is it possible to point out any such difference between the former as would call forth the inventive genius of any person to make the latter? They are identical in principle, identical in theory, identical in process of construction.

Mr. Hassam does not specify any particular thickness of the trap rock in his patent, so if anyone could use six inches of rock, as was done by McClintock, he could use eight inches or ten inches, and complainants' counsel distinctly said in his argument in the Court below that any person could use the McClintock process without infringing the Hassam patent.

In Hassam's second patent he rolls the roadway after it is grouted, but this does not produce any new or different result from what was already well known—the compression, and was not done in any different manner than others had done before him as heretofore shown.

In his third patent he merely adds the pea stone. This did not produce any new or different result, was not a combination of old methods producing a new result, but producing the *same result*.

Counsel also stated in the Court below that we could use the Murphy Patent (page 331 of the record), where Murphy's statement is:

“What I claim is—

The improved pavement, formed of the broken stone and grout foundation B, the layer C, of slag and lime, the stone blocks A, and the interstitial filling of grout, all as shown and described.”

Complainants have no patent upon grout, or the making or mixing or use of the same, and any person can use a cement grout in the construction of foundation B, as well as the grout prescribed by Mr. Murphy, and when that is done they have the

Hassam pavement complete as specified by Mr. Hassam in his patents.

The rule is so clearly stated therein, that we beg to refer to *Winston vs. Croton Falls. Const. Co.*, 194 Fed. 123.

This was an appeal from the Circuit Court of the United States for the Southern District of New York, and dismissing a bill in equity for infringement of patent for apparatus for making concrete blocks, and as applicable to the case at bar we commend to the Court's attention the facts and Opinion in that case. The Court said, p. 124:

"The only novel feature about the entire arrangement is the location of the moulds (for concrete), 'a plurality in the space between the tracks' and 'a plurality alongside and outside of the trackway.' By this arrangement more molds can be filled at the same time. But a mere improvement in the method of doing the work does not necessarily lie within the boundaries of patentable invention. In the opinion of Judge Hough is found the following: 'The complainant has apparently devised an organization for a concrete block yard showing skill in economics and marked executive ability, yet he has utilized the old materials and old tools, not in a patentable combination, but only in economical sequence. What he uses he does not utilize in combination to produce a new mechanical or material result; but he arranges the order of work so as to minimize both labor and transportation, and this, in my judgment, is not patentable.' "

And referring to the views expressed in a former case decided by the same Court, the following quotation from the Opinion in *Dodge Coal Co. vs. R. R. Co.*, 150 Fed. 738, is found:

“The would-be inventor or designer of novel mechanism for accomplishing these objects, therefore, is presumed to have before him the whole field of the art of engineering construction applicable to the collection and removal, the elevation and conveyance of such materials from one point to another. And the question here presented is not what these particular patentees may actually have invented, but whether the state of the art in such engineering field was such that it would require invention to construct such apparatus, or to adapt the constructions known in the art of the exigencies of a particular situation, or the requirements of a certain class of materials.”

For instance the witness Gilman in describing the pavement constructed as an approach to a blacksmith shop, states that the stone was broken by hand, and tamped with a rammer or tamper, both before and after the grout was poured. It would be economical to crush the rock in a stone crusher instead of breaking it by hand. It would be economical to roll the crushed rock with a steam roller instead of tamping it by hand. It would be economical to pour the grout from a pipe devised for that purpose rather than from a bucket; but these changes in the method of doing the work would not be invention but mechanical, economical and executive skill.

The methods of laying concrete in place described by Gordon and Gilman and by McClintock cannot be disposed of by saying they are merely abandoned experiments. The evidence goes further and clearly shows that the methods referred to were so obvious that they were used by different people in different parts of the country. If the Russian's

method described by Gilman had been patented, clearly Hassam's patent would have been anticipated because Hassam's claim in his first patent is not limited by rolling the uncoated stone but makes a claim for compressing it in any other way. The compression is clearly not patentable, because compression of crushed rock had taken place theretofore by rolling and tamping, and by the pressure of traffic.

The three layers in the Bayard patent were successively rolled and then united by a filling coat or mixture (Record, p. 333), which percolates through the pores and interstices which have not been closed by rolling and unites the layers to form a perfectly water tight and impervious mass.

The method is simply that of preparing concrete upon the ground instead of mixing it and pouring it, and this process was old and well known before Hassam's patents, and is precisely the same as making a macadam road, except that the binder is grout instead of water and dust. It is like the bituminous concrete described by Baker and the other documentary evidence except that the binder is composed of Portland cement and sand instead of a bituminous binder, and a change of material for binder does not constitute invention when the materials are all well known and in ordinary and common use.

We most earnestly and sincerely contend, for the reasons shown upon the law and the facts, that the decree of the District Court should be reversed with costs to appellants in both Courts.

Respectfully submitted,

JESSE STEARNS,
JOHN H. HALL,
Of Counsel for Appellants.

